

**Amendments to the Claims**

This listing of claims will replace all prior versions and listings of claims in the above-identified application.

**Listing of Claims**

1. (Currently Amended) In a RAID data storage system comprising a stripe, wherein the stripe comprises stripe units  $B_1 - B_{\max}$ , a method comprising:
  - receiving a request to read data from stripe unit  $B_x$ , wherein  $B_x$  is one of stripe units  $B_1 - B_{\max}$ , wherein the request is received from a computer system in data communication with the RAID data storage system;
  - reading stripe parity  $P$  corresponding to stripe units  $B_1 - B_{\max}$  in response to receiving the request;
  - generating new stripe parity  $P_{\text{new}}$  corresponding to stripe units  $B_1 - B_{\max}$  as a function of data of each of the stripe units  $B_1 - B_{\max}$ ;
  - comparing the new stripe parity  $P_{\text{new}}$  with the stripe parity  $P$ ;
  - returning stripe unit  $B_x$  data to the computer system if the stripe parity  $P$  compares equally to the new stripe parity  $P_{\text{new}}$ .
2. (Previously Presented) The method of claim 1 wherein the RAID data storage system comprises a parity RAID data storage system.
3. (Previously Presented) The method of claim 2 wherein the parity RAID data storage system comprises a RAID-5 data storage system.
4. (Cancelled).

5. (Currently Amended) ~~The method of claim 1 further comprising:~~ In a RAID data storage system comprising a stripe, wherein the stripe comprises stripe units  $B_1 - B_{max}$ , a method comprising:

receiving a request to read data from stripe unit  $B_x$ , wherein  $B_x$  is one of stripe units  $B_1 - B_{max}$ , wherein the request is received from a computer system in data communication with the RAID data storage system;

reading stripe parity  $P$  corresponding to stripe units  $B_1 - B_{max}$  in response to receiving the request;

generating new stripe parity  $P_{new}$  corresponding to stripe units  $B_1 - B_{max}$  as a function of data of each of the stripe units  $B_1 - B_{max}$ ;

comparing the new stripe parity  $P_{new}$  with the stripe parity  $P$ ;

if stripe parity  $P$  does not compare equally to new stripe parity  $P_{new}$ :

reading checksum CS data from memory, wherein the checksum CS data corresponds to stripe units  $B_1 - B_{max}$ ;

(a) generating new data for stripe unit  $B_y$ , one of the stripe units  $B_1 - B_{max}$  as a function of checksum CS data and data of stripe units  $B_1 - B_{max}$  other than stripe unit  $B_y$ ;

(b) generating new checksum  $CS_{new}$  data as a function of the new data for stripe unit  $B_y$  and data of stripe units  $B_1 - B_{max}$  other than stripe unit  $B_y$ ;

(c) comparing new checksum  $CS_{new}$  data with checksum CS data;

(d) overwriting data of stripe unit  $B_y$  with the new data of stripe unit  $B_y$  if new checksum  $CS_{new}$  data compares equally to checksum CS data.

6. (Previously Presented) The method of claim 5 further comprising changing the value of variable  $y$  and repeating (a) – (d) if new checksum  $CS_{new}$  data does not compare equally with checksum CS data.

7. (Currently Amended) A computer readable medium storing instructions executable by a first computer system in a RAID data storage system, wherein the RAID data storage system comprises a stripe, wherein the stripe comprises stripe units  $B_1 - B_{max}$ , wherein the first computer system performs a method in response to executing instructions stored on the computer readable medium, the method comprising:

reading stripe parity  $P$  corresponding to stripe units  $B_1 - B_{max}$  in response to receiving a request to read data from stripe unit  $B_x$ , wherein  $B_x$  is one of  $B_1 - B_{max}$ , wherein the request is received from a second computer system in data communication with the first computer system;

generating new stripe parity  $P_{new}$  corresponding to stripe units  $B_1 - B_{max}$  as a function of data of each of the stripe units  $B_1 - B_{max}$ ;

comparing the new stripe parity  $P_{new}$  with the stripe parity  $P$ ;

returning stripe unit  $B_x$  data to the second computer system if the stripe parity  $P$  compares equally to the new stripe parity  $P_{new}$ .

8. (Previously Presented) The computer readable medium of claim 7 wherein the RAID data storage system comprises a parity RAID data storage system.

9. (Previously Presented) The computer readable medium of claim 8 wherein the parity RAID data storage system comprises a RAID-5 data storage system.

10. (Cancelled)

11. (Currently Amended) ~~The computer readable medium of claim 7, wherein the method further comprises: A computer readable medium storing instructions executable by a first computer system in a RAID data storage system, wherein the RAID data storage system comprises a stripe, wherein the stripe comprises stripe units  $B_1 - B_{max}$ , wherein the first computer system performs a method in response to executing instructions stored on the computer readable medium, the method comprising:~~

reading stripe parity P corresponding to stripe units  $B_1 - B_{max}$  in response to receiving a request to read data from stripe unit  $B_x$ , wherein  $B_x$  is one of  $B_1 - B_{max}$ , wherein the request is received from a second computer system in data communication with the first computer system;

generating new stripe priority  $P_{new}$  corresponding to stripe units  $B_1 - B_{max}$  as a function of data of each of the stripe units  $B_1 - B_{max}$ ;

comparing the new stripe parity  $P_{new}$  with the stripe parity P;

if stripe parity P does not compare equally to new stripe parity  $P_{new}$ :

reading checksum CS data corresponding to stripe units  $B_1 - B_{max}$ ;

(a) generating new data for  $B_y$ , one of the stripe units  $B_1 - B_{max}$ , as a function of checksum CS data and data of stripe units  $B_1 - B_{max}$  other than stripe unit  $B_y$ ;

(b) generating new checksum  $CS_{new}$  data as a function of the new data for stripe unit  $B_y$  and data of stripe units  $B_1 - B_{max}$  other than stripe unit  $B_y$ ;

(c) comparing new checksum  $CS_{new}$  data with checksum CS data;

(d) overwriting data of stripe unit  $B_y$  with the new data of stripe unit  $B_y$  if new checksum  $CS_{new}$  data compares equally to checksum CS data.

12. (Previously Presented) The computer readable medium of claim 11 wherein the method further comprises changing the value of y and repeating (a) – (d) if new checksum  $CS_{new}$  data does not compare equally with checksum CS data.

13. – 15. (Cancelled)

16. (New) The method of claim 5 wherein the RAID data storage system comprises a parity RAID data storage system.

17. (New) The method of claim 16 wherein the parity RAID data storage system comprises a RAID-5 data storage system.

18. (New) The method of claim 5 further comprising returning stripe unit  $B_x$  data to the computer system if the stripe parity  $P$  compares equally to the new stripe parity  $P_{new}$ .

19. (New) The computer readable medium of claim 11 wherein the RAID data storage system comprises a parity RAID data storage system.

20. (New) The computer readable medium of claim 19 wherein the parity RAID data storage system comprises a RAID-5 data storage system.

21. (New) The computer readable medium of claim 11 wherein the method further comprises returning stripe unit  $B_x$  data to the second computer system if the stripe parity  $P$  compares equally to the new stripe parity  $P_{new}$ .